Abstracts

A highly integrated 0.25 /spl mu/m BiCMOS chipset for 3G UMTS/WCDMA handset RF sub-system

D. Brunel, C. Caron, C. Cordier and E. Soudee. "A highly integrated 0.25 /spl mu/m BiCMOS chipset for 3G UMTS/WCDMA handset RF sub-system." 2002 Radio Frequency Integrated Circuits (RFIC) Symposium 02. (2002 [RFIC]): 191-194.

The complete active portion of the 3G UMTS/WCDMA cellular handset RF sub-system is achieved with three RFICs. This chipset comprises a fully integrated ZIF receiver including RF VCO/PLL and UNITS clock generation, a fully Integrated direct conversion like transmitter including RF VCO/PLL, and a 25 dBm average power amplifier including power detection circuitry. The three RFICs use the same baseline 0.25 /spl mu/m BiCMOS technology opening possibilities to even higher integration level. This chipset is targeted at handset class 3 and 4 (PA is class 4 compatible only) European and Japanese 3 G UMTS and WCDMA standards.

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